

Title (en)
CLUTCH DEVICE AND HYBRID MODULE

Title (de)
KUPPLUNGSEINRICHTUNG UND HYBRIDMODUL

Title (fr)
DISPOSITIF D'EMBRAYAGE ET MODULE HYBRIDE

Publication
EP 3593002 A1 20200115 (DE)

Application
EP 18711220 A 20180223

Priority
• DE 102017104743 A 20170307
• DE 2018100163 W 20180223

Abstract (en)
[origin: WO2018162001A1] The invention relates to a clutch device and to a hybrid module having the clutch device, which clutch device comprises the following: a main clutch (10) having a friction pack (11) and a displaceable pressure device (12) for producing a pressing force (14) on the friction pack (11), a ramp system (30) for displacing the pressure device (12), a pilot control clutch (40) for the purpose of transmitting torque to the ramp system (30), having a counter-plate (42) and having an actuating device (50) for displacing the counter-plate (42), wherein the pilot control clutch (40) can be opened and closed by displacement of the counter-plate (42) and the pressure device (12) is displaceable by exertion of a force (45) from the counter-plate (42) onto the pressure device (12), an inner cage (16) and an outer cage (15), wherein the friction pack (11) is mechanically connected to the inner cage (16) and to the outer cage (15), a ramp element (31) arranged on the inner cage (16) and a ramp element (32) which is rotatable relative thereto, wherein, when the pilot control clutch (40) is closed, the rotatable ramp element (32) and the pilot control clutch (40) are mechanically connected to the inner cage (16) and to the outer cage (15). The ramp element (31) is connected to the inner cage (16) by means of a freewheel (70) which blocks a rotary movement of the ramp element (32) in relation to the inner cage (14) in one direction of rotation and frees the movement counter to said direction of rotation.

IPC 8 full level
F16D 13/54 (2006.01)

CPC (source: EP US)
B60K 6/387 (2013.01 - US); **F16D 13/54** (2013.01 - EP US); **F16D 23/12** (2013.01 - EP US); **F16D 25/082** (2013.01 - EP); **F16D 25/082** (2013.01 - US); **F16D 2023/123** (2013.01 - EP US); **Y02T 10/62** (2013.01 - EP)

Citation (search report)
See references of WO 2018162001A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2018162001 A1 20180913; CN 110382898 A 20191025; CN 110382898 B 20210625; DE 102017104743 A1 20180913; EP 3593002 A1 20200115; EP 3593002 B1 20220713; US 11518230 B2 20221206; US 2022001735 A1 20220106

DOCDB simple family (application)
DE 2018100163 W 20180223; CN 201880015658 A 20180223; DE 102017104743 A 20170307; EP 18711220 A 20180223; US 201816476326 A 20180223